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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/126,683	07/30/1998	BRUCE ANTHONY BEADLE	AT9-98-303	9195

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ART UNIT	PAPER NUMBER
2126	[REDACTED]

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Please find below and/or attached an Office communication concerning this application or proceeding.

SK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/126,683	BEADLE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Charles E Anya	2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 February 2003.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 10-26 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 10-26 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10 – 13 and 16 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,192,476 B1 to Gong in view of U.S. Pat. No. 6,009,517 to Bak et al.

As to claim 10, Gong teaches a Privilege (“...permissions...” Col. 11 Ln. 38 – 67), Method (Check Permission Method 382 Method 340-3 Method 340-2 Method 340-1 Col. 11 Ln. 1 - 35), Data Processing System (Computer System 100 Col. 5 Ln. 26 – 67), a Current Thread (Thread 306 Col. 10 Ln. 66 – 67, Col. 11 Ln. 1 - 35), a Run-Time Environment (Code Executor 210 Col. 6, Ln. 50 – 67), a Stack (Call Stack 308 Col. 10 Ln. 66 – 67, Col. 11 Ln. 1 - 35), a Stack Frame (Frame 310-F Frame 310-4 Frame 310-3 Frame 310-2 Frame 310-1 Col. 11 Ln. 1 – 35) a Thread Identifier (Thread 306 Col. 15 Ln. 21 – 67, Col. 16 Ln. 1 – 67: NOTE: Thread 306 includes a thread identifier), locating a linked List and searching the linked list (Stack 308 is queue/linked list of frames and the steps (Steps 430, 440, 450, 490) of inspecting/traversing the stack) and a Stack Frame Extension (Col. 11 Ln. 16 –18).

Gong is silent with reference to a stack frame pointer.

Bak teaches a Stack Frame Pointer ("...frame pointer..." Col. 7 Ln. 1 – 36). It would have been obvious to apply teaching of Bak to the system of Gong. One would have been motivated to make such a modification in order to traverse the frames on the execution stack (Col. 7 Ln. 24 – 36).

As to claim 12, claim 10 meets claim 12 except for privilege information and validation information.

Gong teaches Privilege Information (Privilege Flag 312 Col. 14 Ln. 57 – 67) and Validation Information (Col. 11 Ln. 19 - 25).

As to claim 11, Although a plurality of linked list is not explicitly taught, Gong does teach that a parent thread could create child thread that inherits the parent's call stack (Col. 17 Ln. 8 – 21). By inheriting the parent's call stack and have it's own call stack a plurality of linked list is achieved.

As to claim 13, see the rejection of claim 12.

As to claim 16, Gong teaches retrieving privilege information and validation information (Step 440 Col. 16 Ln. 31 – 43).

As to claim 17, claims 10 and 11 meets claim 17 except for storing privilege information, querying the stack frame shadow apparatus and deleting privilege information in order to revert a privilege.

Gong as modified teaches storing privilege information to enable a privilege (Privilege Flag 312 Col. 14 Ln. 57 – 67, Col. 15 Ln. 1 – 4), querying (Step 430, 440, 450 and 490 Col. 15 Ln. 43 – 67, Col. 1 – 67: NOTE: Although this querying does not include a

shadow stack apparatus the steps of figure 4 could include the parent and child thread of claim 11) and deleting privilege information in order to revert a privilege (Col. 15 Ln. 4 – 14).

As to claim 18, see the rejection of claim 10.

As to claim 19, see the rejection of claim 10.

As to claim 20, see the rejection of claim 11.

As to claim 21, see the rejection of claim 12.

As to claim 22, see the rejection of claim 13.

As to claim 23, see the rejection of claim 14.

As to claim 24, see the rejection of claim 15.

As to claim 25, see the rejection of claim 16.

As to claim 26, see the rejection of claim 10.

3. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,192,476 B1 to Gong in view of U.S. Pat. No. 6,009,517 to Bak et al. as applied to claim 10 above, and further in view of Introduction to the Capabilities Classes (Hereinafter referred to as ICC pages 1 – 15).

As to claim 14, Gong as applied to claim 10 does not teach adding an entry if no matching entry is found.

ICC teaches adding an entry if no matching entry is found (page 3, line 11 – 21). It would have been obvious to apply the teaching of ICC to the system of Gong as modified. One would have been motivated to make such modification to enable privilege for a method.

As to claim 15, Gong as applied to claim 10 is silent with respect removing a matching entry.

ICC teaches removing a matching entry (page 3, line 37 – 47). It would have been obvious to apply the teaching of ICC to the system of Gong as modified. One would have been motivated to make such modification to restrict enabled privilege (page 3, line 37 – 47).

### ***Response to Arguments***

4. Applicant's arguments with respect to claim 10 – 26 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (703) 305-3411. The examiner can normally be reached on M – F (First Friday Off) from 8:30 am to 5:30 pm.

The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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Charles E Anya  
Examiner  
Art Unit 2126

Sue Lao